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10/579,132	05/12/2006	Dirk Buchhauser	12406-165US1 P2004.0306 U	6301
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EXAMINER				
QUARTERMAN, KEVIN J				
ART UNIT		PAPER NUMBER		
2889				
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**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

PATDOCTC@fr.com

# Office Action Summary

**Application No.**

10/579,132

**Applicant(s)**

BUCHHAUSER ET AL.

**Examiner**

Kevin Quarterman

**Art Unit**

2889

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 12 May 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-17 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-17 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 12 May 2006 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO/ISD)
- 4) ☐ Interview Summary (PTO-413)
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_
- Paper No(s)/Mail Date 0506 1006

## **DETAILED ACTION**

### ***Specification***

1. Applicant is reminded of the proper language and format for an abstract of the disclosure.

The abstract should be in narrative form and generally limited to a single paragraph on a separate sheet within the range of 50 to 150 words. It is important that the abstract not exceed 150 words in length since the space provided for the abstract on the computer tape used by the printer is limited. The form and legal phraseology often used in patent claims, such as "means" and "said," should be avoided. The abstract should describe the disclosure sufficiently to assist readers in deciding whether there is a need for consulting the full patent text for details.

The language should be clear and concise and should not repeat information given in the title. It should avoid using phrases which can be implied, such as, "The disclosure concerns," "The disclosure defined by this invention," "The disclosure describes," etc.

2. The abstract of the disclosure is objected to because it exceeds 150 words.

Correction is required. See MPEP § 608.01(b).

### ***Claim Rejections - 35 USC § 102***

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

4. Claims 1-9, 12-13, and 16-17 are rejected under 35 U.S.C. 102(b) as being anticipated by Tang (US 5,294,870).
5. Regarding independent claim 1, Figures 1 and 2 of Tang show a color organic display (100) with pixels (C6), which comprise a subpixel set (Gp, Rp, Bp) with colors red, green, and blue comprising a substrate (105), which is at least partially transparent

to visible light (col. 4, ln. 18-20), a structured color filter (101), which generates the colors of the subpixels and is subsequentially arranged on the substrate; a first electrode (R1) on the color filter, which is at least partially transparent to visible light (col. 5, ln. 12-15); at least one active layer (EL) on the first electrode containing an emissive material, which is suitable for the generation of electromagnetic radiation, whose spectrum is matched to the color filter such that the pixels during control with the same electrical signal emit light whose color location lies within the white region of the CIE diagram; and a second electrode (a, b, c) arranged on the active layer.

6. Regarding claim 2, Tang discloses the emissive material containing polymers with first chromophores, which produce a green color impression, and second chromophores, which produce a red color impression (col. 37, ln. 28-56).
7. Regarding claim 3, Tang discloses the polymers containing chromophores, which produce a blue color impression (col. 32, ln. 55-58).
8. Regarding claim 4, Tang discloses the first electrode comprising indium tin oxide (col. 5, ln. 12-15).
9. Regarding claim 5, Tang discloses the active layer containing at least one polyspiro compound (col. 37, ln. 28-56).
10. Regarding claim 6, Tang discloses the active layer containing at least one polyfluorene compound (col. 15, ln. 46).
11. Regarding claim 7, the Examiner notes that when the structure recited in the reference is substantially identical to that of the claims, claimed properties or functions are presumed to be inherent (MPEP § 2112.01). Since the structure of Tang is

substantially identical to the structure claimed in the instant application, the individual subpixels of the subpixel set of Tang inherently have the same lifetime.

12. Regarding claim 8, Tang discloses a method of using an organic display with color filter technology according to claim 1 in electronics (Abstract).

13. Regarding claim 9, Tang discloses a method of using an organic display with color filter technology according to claim 1 for lighting purposes with adjustable color (Abstract).

14. Regarding independent claim 12, Figures 1 and 2 of Tang show an organic device (100) comprising a substrate (105) that is at least partially transparent to visible light (col. 4, ln. 18-20), a structured color filter (101) having a plurality of fields, wherein each field corresponds to a colored subpixel, and a red subpixel, a blue subpixel, and a green subpixel form a pixel; a first electrode (R1) on the color filter; an active layer (EL) on the first electrode comprising an emissive material that is capable of emitting electromagnetic radiation (col. 37, ln. 28-56); and a second electrode (a, b, c) on the active layer, wherein upon driving the red subpixel, the blue subpixel, and the green subpixel with a selected current, the pixel is a white light pixel (col. 9, ln. 22-38).

15. Regarding claim 13, Tang discloses the structured colored filter including pigments (col. 4, ln. 21-28) and the emissive material for the blue subpixel being the emissive material for the red subpixel (col. 8, ln. 14-22).

16. Regarding claim 16, Tang discloses the active layer containing at least one polyspiro compound (col. 37, ln. 28-56).

17. Regarding claim 17, Tang discloses the active layer containing at least one polyfluorene compound (col. 15, ln. 46).

***Claim Rejections - 35 USC § 103***

18. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

19. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

20. Claims 10-11 and 14-15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Tang (US 5,294,870) in view of Cammack (US 2005/0123760).

21. Regarding claim 10, Tang teaches the limitations of independent claim 1 discussed earlier but fails to exemplify the at least one active layer comprising a blue-emitting polymer with red chromophores and blue chromophores covalently coupled to the blue emitting polymer.

22. Cammack teaches that it is known in the art to provide electroluminescent devices with an active layer comprising a blue-emitting polymer with red chromophores and blue chromophores covalently coupled to the blue emitting polymer for emitting light (¶ [0019]).

23. Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to provide the organic display of Tang with an active layer comprising a blue-emitting polymer with red chromophores and blue chromophores covalently coupled to the blue emitting polymer, as taught by Cammack, for emitting light, since it is known to select a known material based on its suitability for its intended use (MPEP § 2144.07).

24. Regarding claim 11, Cammack teaches the at least one active layer comprising a blue-emitting polymer blended with red chromophores and blue chromophores (¶ [0019]). The same motivation as above for claim 10.

25. Regarding claim 14, Tang teaches the limitations of independent claim 12 discussed earlier but fails to exemplify the at least one active layer comprising a blue-emitting polymer with red chromophores and blue chromophores covalently coupled to the blue emitting polymer.

26. Cammack teaches that it is known in the art to provide electroluminescent devices with an active layer comprising a blue-emitting polymer with red chromophores and blue chromophores covalently coupled to the blue emitting polymer for emitting light (¶ [0019]).

27. Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to provide the organic display of Tang with an active layer comprising a blue-emitting polymer with red chromophores and blue chromophores covalently coupled to the blue emitting polymer, as taught by Cammack, for emitting light, since it is known to select a known material based on its suitability for its intended use (MPEP § 2144.07).

28. Regarding claim 15, Cammack teaches the at least one active layer comprising a blue-emitting polymer blended with red chromophores and blue chromophores ([0019]). The same motivation as above for claim 14.

### ***Conclusion***

29. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Heuser (US 7,278,760) discloses a light-emitting electronic component. Poplavskyy (US 2006/0043885) discloses a white organic electroluminescent device. O'Neill (US 2003/0099862) discloses a light emitter for a display. Thompson (US 6,210,814) discloses color-tunable organic light emitting devices.

### ***Contact Information***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Kevin Quarterman whose telephone number is (571)272-2461. The examiner can normally be reached on M-TH (7-5:30).



If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Minh-Toan Ton can be reached on (571) 272-2303. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Kevin Quarterman  
Examiner  
Art Unit 2889

/Toan Ton/  
Supervisory Patent Examiner  
Art Unit 2889

/K. Q./  
Examiner, Art Unit 2889  
27 April 2009